

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS  
ORDER NO. 95-161

FOR  
CATHERINE FOLEY AND PATRICK FOLEY  
AND  
THE COUNTY OF GLENN  
GLENN COUNTY SANITARY LANDFILL  
CLASS III LANDFILL  
GLENN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. The Glenn County Sanitary Landfill is a 193-acre facility owned by Catherine Foley and Patrick Foley, and leased to Glenn County. Catherine Foley, Patrick Foley, and Glenn County are hereafter jointly referred to as Discharger.
2. The Class III landfill at the disposal facility is currently regulated by Waste Discharge Requirements (WDRs) Order No. 93-122 which are in conformance with Title 23, California Code of Regulations (CCR), Division 3, Chapter 15 (hereafter Chapter 15). Order No. 93-122 was amended 17 September 1993 by Order No. 93-200, which implements State Water Resources Control Board Resolution No. 93-62 and federal municipal solid waste (MSW) regulations. The Discharger has submitted a Chapter 15 Article 5 Monitoring Proposal dated 30 June 1992, and a Solid Waste Water Quality Assessment Test (SWAT), dated 30 August 1991.
3. The facility is 5 miles west of the town of Artois, in Section 35, of T21N R4W, MDB&M. The site location is shown in Attachment A, which is incorporated herein and made part of this Order.
4. The landfill has been in operation since October of 1972, accepting nonhazardous solid waste from Glenn County.
5. A portion of the landfill was constructed without a Resource Conservation and Recovery Act (RCRA) Subtitle D liner. This portion is known as Area A. Future expansion areas will be constructed with a RCRA Subtitle D liner, and will be known as Area B. Site operations have proceeded sequentially from Area 1 through Area 5, and into Area 6. These areas are shown in Attachment B, which is incorporated herein and made a part of this Order. Operations will be expanded to the east in Area 6 and to additional undeveloped areas further to the east.

**WASTES AND THEIR CLASSIFICATION**

6. The Discharger proposes to continue to discharge nonhazardous solid wastes in the Class III landfill. These wastes are classified as "nonhazardous solid waste" or "inert waste" using the criteria set forth in Chapter 15. The discharge rate is approximately 430 tons per week. The primary area served by the landfill is Glenn County, although a small amount of waste is received from outside the County.

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7. An estimated 40 percent of the waste stream is residential waste, 25 percent is commercial waste, 15 percent is industrial waste, and the remaining 20 percent is made up of a combination of agricultural and institutional waste.

### **SITE DESCRIPTION**

8. Land within 1000 feet of the facility is used for agriculture.
9. The site is underlain by alluvial fan deposits overlying uplifted and dissected sedimentary deposits of the Tehama Formation. Soils range from clay and silt to coarse sand and gravel.
10. Based on water level measurements made by the Discharger, ground water elevations and flow directions are controlled by seasonal ground water recharge from rainfall. Ground water flows in a generally southeasterly direction from the northwest end of the landfill, consistent with the regional setting. Ground water flow at the southeast end of the landfill, however, appears to vary throughout the year, and may be influenced by a ground water mound in the central area, near Monitoring Well No.1 (MW-1). In February 1995, MW-1 was hydrologically upgradient, while MWs 4 and 6 were downgradient. Ground water depth in February 1995 was approximately 114 to 167 feet below ground surface, at elevations 119.6 to 148.17 feet above mean sea level (MSL).
11. The lowest elevation of waste is 234.8 feet above MSL, which is approximately 80 feet above the highest elevation of ground water.
12. The beneficial uses of ground water are domestic, municipal, agricultural, and industrial supply.
13. The facility receives an average of 17 inches of precipitation per year. The prevailing winds are from the north and northwest with an estimated annual average of approximately 12 miles per hour.
14. The facility is not within a 100-year flood plain.
15. Surface drainage flows to two intermittent streams, Wilson Creek, and White Cabin Creek, which are tributary to the Sacramento River.
16. The beneficial uses of these surface waters are domestic, municipal, agricultural, and industrial supply; ground water recharge; power generation; recreation; aesthetic enjoyment; navigation; fresh water replenishment; and the preservation and enhancement of fish, wildlife and other aquatic resources.

### **FACILITIES OPERATION**

17. Current site operations use a modified area fill method. A broad area is excavated to a depth of approximately 15 to 30 feet below grade, and wastes are discharged to the base of that area. Wastes are spread and compacted in two-foot layers and then covered with six inches of native gravelly clay soils. As each area is completed, a two-foot cover is placed. Cover material is soil from prior excavations.

18. The Discharger's current plans indicate that the Class III landfill will reach capacity, at the earliest, by the year 2021. The total capacity of the landfill is 1.36 million cubic yards.

### **WASTE MANAGEMENT UNIT DESIGN**

#### **Landfill**

19. The existing landfill area, Area A, is not lined, and there are no engineered facilities designed for control, collection, or recovery of leachate. The discharger states that site data demonstrate that natural geologic materials between the base of the Class III landfill and ground water will prevent impairment of beneficial uses of ground water from the discharge of 'nonhazardous solid wastes' to the landfill. However, the Discharger proposes to line the new lateral expansion area, Area B, with 24 inches of compacted clay material, overlain by a 60-mil HDPE flexible membrane liner and a blanket-type leachate collection and recovery system (LCRS) meeting the construction standards of RCRA Subtitle D.

#### **Certification**

20. A registered civil engineer or certified engineering geologist will certify that any new lateral expansions meet the construction or prescriptive standards and performance goals, including siting, design of liners, LCRSs, precipitation and drainage controls, covers, caps, etc., and considerations of seismic and flood safety of Chapter 15.

### **LANDFILL CLOSURE**

21. A Landfill Closure and Post-Closure Maintenance Plan was due by 1 June 1995 as specified in Provision G.12 of Waste Discharge Requirements Order 93-122. Emergency operations during the heavy rains of the 1994-95 winter season diverted Discharger's resources, requiring the Discharger to request an extension of this date to 1 November 1995.

### **FINANCIAL ASSURANCES**

22. Provision G.12(1) of WDR Order 93-122 required submittal by 1 November 1993 of assurances of financial responsibility for initiating and completing corrective action for all known and reasonably foreseeable releases from the landfill. The financial assurances have not been submitted and are now overdue.

### **CEQA AND OTHER CONSIDERATIONS**

23. The action to update the WDRs for this facility is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), in accordance with Title 14, CCR, Section 15301, for existing facilities.

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24. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated regulation (Title 40, Code of Federal Regulations, Parts 257 and 258, "federal municipal solid waste [MSW] regulations" or "Subtitle D") that apply, in California, to dischargers who own or operate Class II or Class III landfill units at which municipal solid waste is discharged. The majority of the federal MSW regulations became effective on the "Federal Deadline", which was 9 October 1993.
25. This Order implements:
  - a. the Water Quality Control Plan, Third Edition, for the Sacramento River Basin and the San Joaquin River Basin;
  - b. the prescriptive standards and performance goals of Chapter 15, Division 3, Title 23 of the California Code of Regulations, effective 27 November 1984, and subsequent revisions;
  - c. the prescriptive standards and performance criteria of Part 258, Title 40 of the Code of Federal Regulations (Subtitle D of the Resource Conservation and Recovery Act); and
  - d. State Water Resources Control Board Resolution No. 93-62, Policy for Regulations of Discharges of Municipal Solid Waste, adopted 17 June 1993.

**PROCEDURAL REQUIREMENTS**

26. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
27. The Board has notified the Discharger and interested agencies and persons of its intention to revise the WDRs for this facility.
28. In a public hearing, the Board heard and considered all comments pertaining to this facility and discharge.

**IT IS HEREBY ORDERED** that Order No. 93-122 is rescinded and Attachment 1 of Order 93-200 is amended to delete Catherine Foley, Patrick Foley, and the Glenn County Public Works Department (for Glenn County Sanitary Landfill), and it is further ordered that Catherine Foley and Patrick Foley and the County of Glenn and their agents, successors and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

**A. DISCHARGE PROHIBITIONS**

1. The discharge of 'hazardous waste' and 'designated waste' at this facility is prohibited. For the purposes of this Order, the terms 'hazardous waste' and 'designated waste' are as defined in Chapter 15.

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2. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses, or ground water is prohibited.
3. The discharge of waste to ponded water from any source is prohibited.
4. The discharge of waste within 100 feet of surface waters is prohibited.
5. The discharge of wastes which have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the landfill, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which:
  - a. require a higher level of containment than provided by the landfill,
  - b. are "restricted hazardous wastes", or
  - c. impair the integrity of containment structures, is prohibited.
6. The discharge to the landfill of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids), except dewatered sewage or water treatment sludge as provided in Section 2523(c) of Chapter 15, is prohibited.
7. The discharge to the landfill unit of solid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited.
8. The discharge of containerized liquids at this facility is prohibited.
9. Discharges of waste to either a landfill unit that has not received wastes or to a lateral expansion of a landfill unit are prohibited, unless the discharge is to an area equipped with a containment system which meets requirements in **B. Specifications.** below.

**B. DISCHARGE SPECIFICATIONS**

**General Specifications**

1. Wastes shall only be discharged into, and shall be confined to, the landfill modules specifically designed for their containment.
2. A minimum separation of 10 feet shall be maintained between wastes or leachates and the highest anticipated elevation of underlying ground water including the capillary fringe.
3. Prior to the discharge of waste to a landfill module, all wells within 500 feet of the module shall have sanitary seals which meet the requirements of Glenn County Public Health Department or shall be properly abandoned. A record of the sealing and/or abandonment of such wells shall be sent to the Board and to the California Department of Water Resources.

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4. Water used for facility maintenance shall be limited to the minimum amount necessary for dust control, construction, and proper compaction of clay liners and covers.
5. Neither the treatment nor the discharge of wastes shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
6. The discharge of wastes shall not cause degradation of any water supply.

**C. FACILITY SPECIFICATIONS**

**General WMU Construction**

1. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the landfill.
2. Materials used to construct leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate over the life of the landfill and the post-closure maintenance period.
3. Landfill liners shall consist of 24 inches of compacted clay with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  cm/s overlain by a 60 mil HDPE synthetic liner which is overlain by a dendritic LCRS. HDPE liner materials shall be laboratory-tested to determine their compatibility with solutions with similar properties to landfill leachate. LCRSs shall be designed, constructed and maintained to collect twice the anticipated daily volume of leachate generated by the landfill and to prevent the buildup of one foot or more of hydraulic head on the underlying natural geologic materials of low hydraulic conductivity. The depth of fluid in any LCRS sump shall be kept at or below the minimum needed to ensure efficient pump operation. Hydraulic conductivities determined through laboratory methods shall be confirmed by field testing in accordance with the Standard Provisions and Reporting Requirements as described in Provision D.1.
4. Each WMU constructed after the effective date of this Order shall be designed and constructed in accordance with Chapter 15, and this Order shall be approved by the Board prior to construction and again prior to operation. The plans submitted to the board for review and approval shall include, but not be limited to, the engineered design plans for the WMU, the construction specifications, a construction quality assurance (CQA) plan, and a revised water quality monitoring plan. The final construction report shall include, but not be limited to, construction record drawings for the WMU, a CQA report with a written summary of the CQA program and all test results, analyses, and copies of the inspectors' original field notes, and a certification as described in Finding No.20.

### Landfill Specifications

5. Landfill leachate shall be discharged by a Board-approved method.
6. Leachate generation by a landfill unit LCRS shall not exceed 85% of the design capacity of the LCRS or the sump pump. If leachate generation exceeds this value and/or if the depth of fluid in an LCRS exceeds the minimum needed for safe pump operation, then the Discharger shall immediately cease the discharge of sludges and other high-moisture wastes to the landfill module and shall notify the Board in writing within seven days. Notification shall include a time table for corrective action.
7. During the rainy season, when precipitation can be expected, a minimum one-foot thickness of low permeability cover shall be maintained over all but the active disposal area of the landfill. The active disposal area shall be confined to the smallest area practicable based on the anticipated quantity of waste discharge and other waste management facility operations.
8. Methane and other landfill gases shall be adequately vented, removed from the landfill units, or otherwise controlled to prevent the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration through the vadose (unsaturated) zone.
9. All containment systems installed after 9 October 1993 shall either: (1) include a composite liner which consists of an upper synthetic flexible membrane component (synthetic liner or SL) and a lower component of soil. The SL shall be at least 40-mils thick (or at least 60-mils thick if high density polyethylene) and shall be installed in direct and uniform contact with the underlying compacted soil component. The lower component shall be compacted soil that is at least two-feet thick, with hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec (this specification is referred to as the Prescriptive Design); or (2) satisfy the performance criteria contained in 40 CFR 258.40(a)(10) and (c) and the criteria for an engineered alternative as provided by 23 CCR 2510(b), where the performance of the alternative containment system's components, in combination, equal or exceed the waste containment capability of the Prescriptive Design.
10. All containment systems installed prior to 9 October 1993 where wastes have not been discharged and which will accept wastes after 9 October 1993 shall include a composite liner which features as its uppermost component a synthetic liner (SL). The SL shall be at least 40-mils thick (or at least 60-mils thick if high density polyethylene) and shall be installed in direct and uniform contact with the underlying materials. The composite liner shall meet the performance criteria contained in 40 CFR 258.40(a)(1) and (c). For steep sideslopes as defined in Specification E.6, below the composite 40-mil (60-mil if HDPE) specification may be replaced by a noncomposite 60-mil (80-mil if HDPE) specification.

### **Supervision and Certification of Construction**

11. All containment structures shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist and shall be certified by that individual as meeting the prescriptive standards and performance goals of Chapter 15 prior to waste discharge.

### **Protection from Storm Events**

12. Precipitation and drainage control systems shall be designed, constructed, and operated to prevent inundation or washout due to floods with a 100-year return period. Landfill related containment structures shall be constructed and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping under 100-year, 24-hour precipitation conditions.
13. Surface drainage from tributary areas and internal site drainage from surface or subsurface sources shall not contact or percolate through wastes.
14. Annually, prior to the anticipated rainy season but no later than **1 November**, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the facility and to prevent surface drainage from contacting or percolating through wastes. The Discharger shall submit an annual report to the Regional Board by 1 December describing measures taken to comply with this specification.
15. Waste management units shall be designed, constructed, and operated in compliance with precipitation and flood conditions contained in the Standard Provisions and Reporting Requirements referenced in Provision G.3., below.

## **D. RECEIVING WATER LIMITATIONS**

### **Water Quality Protection Standards**

The concentrations of Constituents of Concern in waters passing through the Points of Compliance shall not exceed the Concentration Limits established pursuant to Monitoring and Reporting Program No. 95-161, which is attached to and made part of this Order.

## **E. CLOSURE SPECIFICATIONS**

### **Landfill Closure**

1. Landfill closure shall be under the direct supervision of a California registered civil engineer or certified engineering geologist.



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2. The closed landfill shall be provided with at least two permanent monuments, installed by a licensed land surveyor, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period. These monuments shall be protected and maintained throughout the post-closure maintenance period.
3. At closure, Chapter 15 landfill units shall receive a final cover which is designed and constructed to function with minimum maintenance and consists, at a minimum, of a two-foot thick foundation layer which may contain waste materials, overlain by a one-foot thick clay layer with a maximum hydraulic conductivity of  $1 \times 10^{-6}$  cm/s and a minimum relative compaction of 90 percent, and finally by a one-foot thick vegetative soil layer or an engineered equivalent final cover approved by the Board pursuant to Subsections 2510(b) and (c) of Chapter 15. RCRA Subtitle D landfill units must have caps which conform to the requirements of Subtitle D, i.e., a composite cap whose hydraulic conductivity is not greater than that of the liner system ( $1 \times 10^{-7}$  cm/s).
4. Vegetation shall be planted and maintained over each closed landfill module. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth not in excess of the vegetative layer thickness.
5. Closed landfill modules shall be graded to at least a three-percent (3%) grade and maintained to prevent ponding.
6. Areas with slopes greater than ten percent, surface drainage courses, and areas subject to erosion by wind or water shall be designed and constructed to prevent such erosion.

**F. FINANCIAL ASSURANCE**

The Discharger shall maintain assurances of financial responsibility for initiating and completing corrective action for all known and reasonably foreseeable releases from the waste management unit. The Discharger shall also maintain an irrevocable closure fund or other means to ensure closure and post-closure maintenance of the waste management unit.

**G. PROVISIONS**

1. The Discharger shall, in a timely manner, remove and relocate any wastes discharged at this facility in violation of this Order.
2. The Discharger shall maintain a copy of this Order at the facility and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.

3. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated September 1993, which are hereby incorporated into this Order. The Standard Provisions and Reporting Requirements contain important provisions and requirements with which the Discharger must comply. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these waste discharge requirements.
4. The Discharger shall maintain legible records of the volume and type of each waste discharged to the landfill and the manner and location of discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours.
5. The Discharger may file a written request (including appropriate supporting documents) with the Regional Board Executive Officer, proposing appropriate modifications to the Monitoring and Reporting Program. The request may address changes to
  - (a) any statistical method, non-statistical method, or retest method used with a given constituent or parameter,
  - (b) the manner of determining the background value for a constituent or parameter,
  - (c) the method for displaying annual data plots,
  - (d) the laboratory analytical method used to test for a given constituent or parameter,
  - (e) the media being monitored (e.g., the addition of soil pore gas to the media being monitored),
  - (f) the number or placement of Monitoring Points or Background Monitoring Points for a given monitored medium, or
  - (g) any aspect of monitoring or QA/QC.

The Discharger shall implement any changes in the Monitoring and Reporting Program ordered by the Regional Board Executive Officer upon receipt of a revised Monitoring and Reporting Program.

6. The Discharger shall comply with Monitoring and Reporting Program No. 95-161, which is attached to and made part of this Order. A violation of the Monitoring and Reporting Program is a violation of these waste discharge requirements.
7. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor ground water, and surface waters per Monitoring and Reporting Program No. 95-161 throughout the post-closure maintenance period.
8. The post-closure maintenance period shall continue until the Board determines that remaining wastes in the landfill will not threaten water quality.

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9. The compliance period as defined in §2550.6 of Chapter 15 shall begin each time the Discharger initiates an evaluation monitoring program and shall continue until the Discharger can demonstrate either that the landfill has been in continuous compliance with the water quality protection standard for a period of three consecutive years, or that a release did not occur pursuant to §2550.9 (f).
10. The owner of the waste management facility shall have the continuing responsibility to assure protection of usable waters from discharged wastes and from gases and leachate generated by discharged waste during the active life, closure, and post-closure maintenance period of the landfill and during subsequent use of the property for other purposes.
11. The Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. 95-161 in accordance with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
Submit Financial Assurance Information	<b>1 September 1995</b>
Submit to the Board a Preliminary Closure and Post-Closure Maintenance Plan.	<b>1 November 1995</b>

12. The Discharger shall comply with all applicable provisions of 23 CCR Chapter 15 and 40 CFR Part 258 that are not specifically referred to in this Order.
13. The Board will review this Order periodically and will revise these requirements when necessary.

#### **H. REPORTING REQUIREMENTS**

1. The Discharger shall comply with the reporting requirements specified in this Order, in Monitoring and Reporting Program Order No. 95-161, and in the Standard Provisions and Reporting Requirements which are attached hereto and made part of this Order.
2. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with Monitoring and Reporting Program No. 95-161, as required by Sections 13750 through 13755 of the California Water Code.
3. The Discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or of precipitation and drainage control structures.
4. If leachate generation exceeds the value specified above for either landfills or surface impoundments, and/or if the depth of fluid in a LCRS exceeds the minimum needed for efficient pump operation, then the Discharger shall immediately cease the discharge of sludges

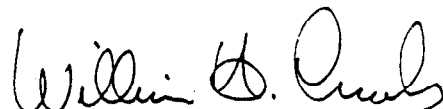
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and other high-moisture wastes to the landfill unit and shall notify the Board in writing within seven days. Notification shall include a time table for corrective action necessary to reduce leachate production.

5. The Discharger shall submit a status report regarding the financial assurances for corrective action and closure every five years after the date of adoption of these requirements that either validates the ongoing viability of the financial instrument or proposes and substantiates any needed changes.
6. The Discharger shall submit to the Board for approval a preliminary closure and post-closure maintenance plan not later than **1 November 1995**. The closure and post-closure maintenance plan shall describe the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during final operations and during any proposed subsequent use of the land.
7. The method used to close each module at the facility and maintain protection of the quality of surface and ground waters shall comply with waste discharge requirements established by the Board.
8. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the landfill. The Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Board.
9. The Discharger shall notify the Board of any notable change in the landfill closure plans. This notification shall be given 90 days prior to the effective date of the change and shall be accompanied by any technical documents that are needed to demonstrate continued compliance with these WDRs.

I, WILLIAM H. CROOKS, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 23 June 1995.



WILLIAM H. CROOKS, Executive Officer

GJW:gjw/lsb

AMENDED: 23 June 1995

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The Discharger shall maintain water quality monitoring systems that are appropriate for detection monitoring and that comply with the provisions of Title 23, California Code of Regulations, Division 3, Chapter 15, Article 5.

Compliance with this Monitoring and Reporting Program, and with the companion Standard Provisions and Reporting Requirements, is ordered by Waste Discharge Requirements Order No. 95-161. Failure to comply with this Program, or with the Standard Provisions and Reporting Requirements, constitutes noncompliance with the WDRs and with the Water Code, which can result in the imposition of civil monetary liability.

**A. REPORTING**

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in the Standard Provisions and Reporting Requirements. Reports which do not comply with the required format will be REJECTED and the Discharger shall be deemed to be in noncompliance with the WDRs. In reporting the monitoring data required by this program, the Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The data shall be summarized in such a manner so as to illustrate clearly the compliance with waste discharge requirements or the lack thereof. A short discussion of the monitoring results, including notations of any water quality violations shall precede the tabular and graphical summaries.

Field and laboratory tests shall be reported in the quarterly monitoring reports. Quarterly monitoring reports shall be submitted to the Board by the 15th day of the month following the calendar quarter in which the samples were taken. The results of any monitoring done more frequently than required at the locations specified herein shall be reported to the Board. An annual report shall be submitted to the Board which contains both tabular and graphical summaries of the monitoring data obtained during the previous twelve months, so as to show historical trends at each well. The report shall include a discussion of the progress toward re-

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establishment of compliance with waste discharge requirements and water quality protection standard.

Method detection limits and practical quantitation limits shall be reported. All peaks shall be reported, including those which cannot be quantified and/or specifically identified. Metals shall be analyzed according to the methods listed in Attachment D.

## **B. REQUIRED MONITORING REPORTS**

### **I. Water Quality Protection Standard Report**

The Discharger submitted a water quality protection standard in the *"Article 5 Monitoring Program"* dated 30 June 1992. Any changes to this water quality protection standard shall be described in the annual monitoring report.

### **II. Detection and Evaluation Monitoring Report**

The Discharger shall submit reports of the results of detection and evaluation monitoring in accordance with the schedules specified in this Monitoring and Reporting Program.

### **III. Annual Monitoring Summary Report**

The Discharger shall submit the Annual Monitoring Summary Report as specified in the Standard Provisions and Reporting Requirements.

### **IV. Constituents-of-Concern (COC) 5 Year Report**

In the absence of a *new* release being indicated, the Discharger shall monitor all Constituents of Concern for all Monitoring Points for each monitored medium for all COCs every fifth year, beginning with calendar year 1995 (the first Reporting Period ends 31 March 1996) with subsequent COC monitoring efforts being carried out every fifth year thereafter alternately in the Summer (Reporting period ends 30 September) and Winter (Reporting Period ends 31 March). The COC Report may be combined with a Detection Monitoring Report or an Annual Summary Report having a Reporting Period that ends at the same time.

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**V. Constituents-of-Concern (COC) Leachate Detection Report**

The Discharger shall report to the Board by no later than **31 January** of a given year the analytical results of the leachate sample taken the previous fall, including an identification of all detected COCs in Attachment D that are not on the landfill's Constituent of Concern list.

During any year in which a spring leachate re-test is performed, the Discharger shall submit a report to the Board, by no later than **31 July** of that year, identifying all constituents which must be added to the landfill's COC list as a result of having been detected in both the (previous calendar year's) fall sample and in the spring re-test sample.

**Standard Observations**

Each monitoring report shall include a summary and certification of completion of all Standard Observations for the waste management unit, for the perimeter of the WMU, and for the receiving waters. The standard observations shall be performed on a weekly basis and shall include those elements as defined in the Standard Provisions and Reporting Requirements.

**C. MONITORING**

If the Discharger, through a detection monitoring program, or the Board finds that there is a statistically significant increase in indicator parameters or waste constituents over the water quality protection standards (established pursuant to Monitoring and Reporting Program No. 95-161) at or beyond the Points of Compliance, the Discharger shall notify the Board or acknowledge the Board's finding in writing within seven days, and shall immediately resample for the constituent(s) or parameter(s) at the point where the standard was exceeded. Within 90 days, the Discharger shall submit to the Board the results of the resampling and either:

- a. a report demonstrating that the water quality protection standard was not, in fact, exceeded; or
- b. an amended Report of Waste Discharge for the establishment of a verification monitoring program, per Section 2557 of Chapter 15, which is designed to verify that water quality protection standards have been exceeded and to determine the horizontal and vertical extent of pollution.

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If the Discharger, through an evaluation monitoring program, or the Board verifies that water quality protection standards have been exceeded at or beyond the Points of Compliance, the Discharger shall notify the Board or acknowledge the Board's finding in writing within seven days. Within 180 days, the Discharger shall submit to the Board an amended Report of Waste Discharge for the establishment of a corrective action program, per Section 2558 of Chapter 15, which is designed to achieve compliance with the water quality protection standards.

#### D. REQUIRED MONITORING PROGRAMS

##### 1. Solid Waste Monitoring Program

Within six months of the adoption of these requirements, the Discharger shall submit to the Board for approval, a report describing a periodic load checking program to be implemented by the Discharger to ensure that "hazardous wastes" and "designated wastes" are not discharged to the Class III landfill unit.

##### Nonhazardous Solid Waste Monitoring

The Discharger shall monitor all wastes discharged to the Class III landfill modules on a monthly basis and report to the Board as follows:

<u>Parameter</u>	<u>Units</u>	<u>Reporting Frequency</u>
Quantity discharged	cubic yards	Quarterly
Type of material discharged	---	Quarterly
Source(s) of material discharged	---	Quarterly
Minimum elevation of discharge	feet & tenths MSL	Quarterly
Capacity of landfill/module remaining	percent	Annually
Results of Load Checking Program	---	Quarterly



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**2. Leachate Monitoring**

Leachate monitoring will be incorporated into all future expansions at the landfill. All landfill modules and LCRS sumps shall be inspected monthly for leachate generation. All leachate collection and removal systems (LCRSs) added in the future to the landfill will be tested annually to demonstrate operation in conformance with waste discharge requirements. The results of these tests shall be reported to the Board and shall include comparison with earlier tests made under comparable conditions. All visible portions of synthetic liners shall be inspected on a quarterly basis and their condition reported quarterly to the Board.

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TABLE I  
 LEACHATE MONITORING PROGRAM

<u>Parameter</u>	<u>Units</u>	<u>Frequency</u>
Field Parameters		
Total Flow	gallons	Monthly
Flow Rate	gallons / day	Monthly
Specific Conductance	µmhos / cm	Monthly
pH	pH units	Monthly
Monitoring Parameters		
Total Dissolved Solids (TDS)	mg/L	Quarterly
Chloride	mg/L	Quarterly
Sulfate	mg/L	Quarterly
Nitrate - Nitrogen	mg/L	Quarterly
Constituents of Concern		
Total Organic Carbon	mg/L	Quarterly
Carbonate	mg/L	Quarterly
Bicarbonate	mg/L	Quarterly
Alkalinity	mg/L	Quarterly
Volatile Organic Compounds (EPA Method 8260, see Attachment D)	µg/L	Annually
Semi-Volatile Organic Compounds (EPA Method 8270, see Attachment D)	µg/L	Annually
Organochlorine Pesticide, PCBs (EPA Method 8080)	µg/L	Annually
Chlorophenoxy Herbicides (EPA Method 8150)	µg/L	Annually
Inorganics (dissolved) (see Attachment D for method)	mg/L	Annually

Upon detection of leachate in a previously dry LCRS, the Discharger shall immediately sample the leachate and shall continue to sample and report the leachate at the frequencies listed in Table I thereafter.

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**3. Ground Water Monitoring**

Field and laboratory tests shall be reported in the quarterly monitoring reports. All "Monitoring Parameters" shall be graphed so as to show historical trends at each well.

The ground water surface elevation (in feet and hundredths, M.S.L.) in all wells shall be measured on a quarterly basis and used to determine the velocity and direction of ground water flow. This information shall be displayed on a water table contour map and/or ground water flow net for the site and submitted with the quarterly monitoring reports.

Intra-well comparisons will be used to determine compliance with concentration limits (i.e. concentration limits based on historical data will be used for each monitoring parameter in each individual well).

The monitoring network consists of monitoring wells MW-1, MW-2, MW-4, MW-5, and MW-6. Locations of these wells are shown on Attachment B. Samples shall be collected from all wells and analyzed at the frequency and for the parameters specified in Table II.

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**TABLE II**  
**GROUND WATER MONITORING PARAMETERS / FREQUENCY**

Parameter	Units	Frequency
<b>Field Parameters</b>		
Temperature	°C	Quarterly
Ground Water Elevation	Feet and hundredths, M.S.L.	Quarterly
Specific Conductance	µmhos/cm	Quarterly
pH	pH units	Quarterly
Turbidity	Turbidity units	Quarterly
<b>Monitoring Parameters</b>		
Total Dissolved Solids (TDS)	mg/L	Quarterly
Chlorides	mg/L	Quarterly
Sulfates	mg/L	Quarterly
Nitrate - Nitrogen	mg/L	Quarterly
Volatile Organic Compounds (EPA Method 8260, see Attachment C)	µg/L	Quarterly
<b>Constituents of Concern</b>		
Total Organic Carbon	mg/L	Annually
Carbonate	mg/L	Annually
Bicarbonate	mg/L	Annually
Alkalinity	mg/L	Annually
Total Kjeldahl Nitrogen	mg/L	Annually
Volatile Organic Compounds (EPA Method 8260, see Attachment D)	µg/L	5-years
Semi-Volatile Organic Compounds (EPA Method 8270)	µg/L	5-years
Organochlorine Pesticide and PCBs (EPA Method 8080)	µg/L	5-years
Chlorophenoxy Herbicides (EPA Method 8150)	µg/L	5-years
Organophosphorus Compounds (EPA Method 8140)	µg/L	5-years
Inorganics (dissolved) (see Attachment D for method)	mg/L	5-years

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**4. Surface Water Monitoring**

Since the streams in the vicinity of the landfill are ephemeral in nature, samples can only be taken when flow is present in the streams. Therefore, White Cabin Creek, approximately 1000 feet from the southern boundary of the landfill, will be inspected for flow during all quarterly monitoring events. Samples shall be taken from points upstream (background), and downstream (compliance) of the landfill when enough water for samples is present. The results of the stream inspection shall be reported quarterly, and the location of any sample taken shall be described.

Surface water samples shall be collected annually after the first rainfall runoff producing storm of the monitoring period provided sufficient water is present. Samples shall be collected from all stations and analyzed at the frequencies and for the parameters specified in Table III.

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**TABLE III**  
**SURFACE WATER MONITORING PARAMETERS / FREQUENCY**

<b>Parameter</b>	<b>Units</b>	<b>Frequency</b>
<b>Field Parameters</b>		
Temperature	°C	Quarterly
Specific Conductance	µmhos / cm	Quarterly
pH	pH units	Quarterly
Turbidity	Turbidity units	Quarterly
Flow Rate (Receiving Waters)	gpm (estimate)	Quarterly
<b>Monitoring Parameters</b>		
Total Dissolved Solids (TDS)	mg/L	Quarterly
Total Suspended Solids (TSS)	mg/L	Quarterly
Chlorides	mg/L	Quarterly
Sulfates	mg/L	Quarterly
Nitrate - Nitrogen	mg/L	Quarterly
<b>Constituents of Concern</b>		
Total Organic Carbon	mg/L	Annually
Carbonate	mg/L	Annually
Biarbonate Alkalinity	mg/L	Annually
Volatile Organic Compounds (EPA Method 8260, see Attachment D)	µg/L	5-years
Semi-Volatile Organic Compounds (EPA Method 8270)	µg/L	5-years
Organochlorine Pesticide and PCBs (EPA Method 8080)	µg/L	5-years
Chlorophenoxy Herbicides (EPA Method 8150)	µg/L	5-years
Organophosphorus Compounds (EPA Method 8140)	µg/L	5-years
Total Kjeldahl Nitrogen	mg/L	Annually
Chemical Oxygen Demand	mg/L	Annually
Dissolved Oxygen	mg/L	Annually
Oil and Grease	mg/L	Annually
Inorganics (total recoverable metals) (see Attachment D for method)	mg/L	Annually
Total Coliform	MPN/100mL	Annually
Fecal Coliform	MPN/100mL	Annually
Fecal Streptococci	MPN/100mL	Annually

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**5. Unsaturated Zone Monitoring**

Monitoring of an existing suction lysimeter, SL-1, has indicated that vadose zone monitoring may be feasible. Suction lysimeter, SL-1, shall be monitored and the results reported quarterly to gather more data on the amount of water which can be consistently recovered from the lysimeter. Unsaturated zone monitoring shall be incorporated into future expansions at the landfill if samples can be consistently taken from SL-1. The location of lysimeter, SL-1 is shown in Attachment B.

**D. WATER QUALITY PROTECTION STANDARD**

The Water Quality Protection Standard (Standard) shall consist of the following elements:

- a. constituents of concern;
- b. concentration limits;
- c. monitoring points;
- d. points of compliance; and
- e. compliance period.

Each of these is described as follows:

**1. Constituents of Concern**

The 'COC list' (list of Constituents of Concern required under 23 CCR 2550.3) shall include all constituents listed in Tables I, II, III, and IV (above), the Waste Discharge Requirements No. 95-161, and all constituents listed in Attachment D. The Discharger shall monitor all COCs every five years, or more frequently as required under the evaluation monitoring program.

**2. Concentration Limits**

The Concentration Limit for any given Constituent of Concern or Monitoring Parameter in a given monitored medium (i.e., the uppermost aquifer) at a landfill shall be as follows, and shall be used as the basis of comparison with data from the Monitoring Points in that monitored medium:

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- a. The background value established in the WDRs by the Board for that constituent and medium;
- b. The constituent's background value, established anew during each Reporting Period using only data from all samples collected during that Reporting Period from the Background Monitoring Points for that monitored medium. Either:
  - (1) The mean (or median, as appropriate) and standard deviation (or other measure of central tendency, as appropriate) of the constituent's background data; or
  - (2) The constituent's MDL, in cases where less than 10 percent of the background samples exceed the constituent's MDL; or
- c. A concentration limit greater than background, as approved by the Board for use during or after corrective action.

The concentration limits, proposed by the Discharger, for each water bearing media are shown in the following tables:



**GROUNDWATER  
CONCENTRATION LIMITS**

<u>Constituent</u>	<u>Units</u>	<u>MW-1</u>	<u>MW-2</u>	<u>MW-4</u>	<u>MW-5</u>	<u>MW-6</u>
Specific Conductance (EC)	µmhos/cm	390	476	391	471	501
pH	pH units	6.6-10.8	6.5-8.9	6.1-9.7	6.4-8.8	6.1-9.1
Total Dissolved Solids	mg/L	331	391	291	316	393
Alkalinity (as CaCO <sub>3</sub> )	mg/L	277	263	202	206	231
Bicarbonate	mg/L	303	327	252	270	278
Carbonate	mg/L	37	9	9	9	9
Total Kjeldahl Nitrogen *	mg/L	TBA	TBA	TBA	TBA	TBA
Chloride	mg/L	84	10	10	17	9
VOCs (EPA 601 and 602)	µg/L	Detect	Detect	Detect	Detect	Detect
Sulfate	mg/L	62	30	15	13	10
Nitrate as N	mg/L	5.4	4.8	4.0	5.7	3.5
Aluminum, dissolved *	mg/L	TBA	TBA	TBA	TBA	TBA
Antimony, dissolved	mg/L	2.72	2.72	2.72	2.72	2.72
Arsenic, dissolved	mg/L	1.82	1.82	1.82	1.82	1.82
Barium, dissolved	mg/L	0.39	0.42	0.30	0.09	0.23
Beryllium, dissolved	mg/L	0.01	0.01	0.01	0.01	0.01
Boron, dissolved *	mg/L	TBA	TBA	TBA	TBA	TBA
Cadmium, dissolved	mg/L	0.04	0.04	0.04	0.04	0.04
Calcium, dissolved	mg/L	98	32	26	86	34
Chromium, total dissolved	mg/L	0.21	0.03	0.06	0.08	0.08
Cobalt, dissolved	mg/L	0.06	0.04	0.04	0.04	0.04
Copper, dissolved	mg/L	0.25	0.04	0.04	0.04	0.04
Iron, dissolved	mg/L	42	13	2	3	1
Lead, dissolved	mg/L	0.03	0.06	0.01	0.05	0.01
Magnesium, dissolved	mg/L	39	38	29	53	48
Manganese, dissolved	mg/L	0.82	0.78	0.04	0.41	0.07
Mercury, dissolved	mg/L	0.01	0.02	0.001	0.01	0.001
Molybdenum, dissolved	mg/L	4.6	4.6	4.6	4.6	4.6
Nickel, dissolved	mg/L	0.14	0.04	0.04	0.04	0.04
Potassium, dissolved	mg/L	13.3	10.2	10.6	5.4	2.6
Selenium, dissolved	mg/L	0.003	0.003	0.003	0.003	0.003
Silver, dissolved	mg/L	1.86	2.05	0.18	0.18	0.18
Sodium, dissolved	mg/L	69	24	30	127	26
Thallium, dissolved	mg/L	0.17	0.17	0.17	0.17	0.17
Tin, dissolved *	mg/L	TBA	TBA	TBA	TBA	TBA
Vanadium, dissolved	mg/L	0.13	0.05	0.02	0.03	0.04
Zinc, dissolved	mg/L	0.20	0.34	0.16	0.04	0.23

\* To be calculated after 8 quarters of data have been collected. (TBA)

### SURFACE WATER CONCENTRATION LIMITS

Constituent	Units	Concentration Limit
Specific Conductance (EC)	µmhos/cm	TBA
pH	pH units	TBA
Total Dissolved Solids (TDS)	mg/L	TBA
Bicarbonate Alkalinity	mg/L	TBA
Total Kjeldahl Nitrogen	mg/L	TBA
Total Organic Carbon	mg/L	TBA
Carbonate	mg/L	TBA
Chloride	mg/L	TBA
Sulfate	mg/L	TBA
Nitrate as N	mg/L	TBA
COD	mg/L	TBA
DO	mg/L	TBA
VOCs (EPA 8260 and 8270)	mg/L	Detect
Organochlorine Pesticide, PCB (EPA 8080)	mg/L	Detect
Chlorophenoxy Herbicides (EPA 8150)	mg/L	Detect
Organophosphorus Compounds (EPA 8140)	mg/L	Detect
Aluminum, dissolved	mg/L	TBA
Antimony, dissolved	mg/L	TBA
Arsenic, dissolved	mg/L	TBA
Barium, dissolved	mg/L	TBA
Beryllium, dissolved	mg/L	TBA
Boron, dissolved	mg/L	TBA
Cadmium, dissolved	mg/L	TBA
Calcium, dissolved	mg/L	TBA
Chromium, dissolved	mg/L	TBA
Chromium VI <sup>+</sup> , dissolved	mg/L	TBA
Cobalt, dissolved	mg/L	TBA
Copper, dissolved	mg/L	TBA
Cyanide, dissolved	mg/L	TBA
Iron, dissolved	mg/L	TBA
Lead, dissolved	mg/L	TBA
Magnesium, dissolved	mg/L	TBA
Manganese, dissolved	mg/L	TBA
Mercury, dissolved	mg/L	TBA
Molybdenum, dissolved	mg/L	TBA
Nickel, dissolved	mg/L	TBA

To be calculated after 8 quarters of data have been collected. (TBA)

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SURFACE WATER CONCENTRATION LIMITS		
Constituent	Units	Concentration Limit
Potassium, dissolved	mg/L	TBA
Selenium, dissolved	mg/L	TBA
Silver, dissolved	mg/L	TBA
Sodium, dissolved	mg/L	TBA
Sulfide, dissolved	mg/L	TBA
Thallium, dissolved	mg/L	TBA
Tin, dissolved	mg/L	TBA
Vanadium, dissolved	mg/L	TBA
Zinc, dissolved	mg/L	TBA
Total Coliform	MPN/100mL	TBA
Fecal Coliform	MPN/100mL	TBA
Fecal Streptococci	MPN/100mL	TBA
To be calculated after 8 quarters of data have been collected. (TBA)		

3. Monitoring Points

Monitoring Points for detection monitoring shall be those listed in this Monitoring and Reporting Program and shown on Attachment B.

Surface Water: To be reported with each sampling.  
 Ground Water: MW-1, MW-2, MW-4, MW-5, MW-6  
 Unsaturated Zone: SL-1

4. Points of Compliance

The Points of Compliance, for each WMU, shall be those listed in this Monitoring and Reporting Program and shown on Attachment B.

Surface Water: A point immediately downstream of landfill site.  
 Ground Water: MW-1, MW-2, MW-4, MW-5, MW-6 (Intra-well comparison).

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5. Compliance Period

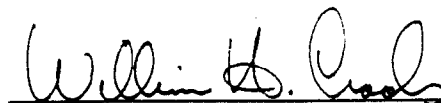
The Compliance Period is the number of years equal to the active life of the landfill plus the closure period. Each time the Standard is exceeded (i.e., a release is discovered), the landfill begins a Compliance Period on the date the Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the Standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the landfill has been in continuous compliance for at least three consecutive years.

**Statistical Procedures for Determining Significant Increases**

The significance of increases in indicator parameters and waste constituents over water quality protection standards shall be established through the use of the statistical procedures in §2555.7 of Chapter 15.

The Discharger shall implement the above monitoring program on the effective date of this Order.

Ordered by

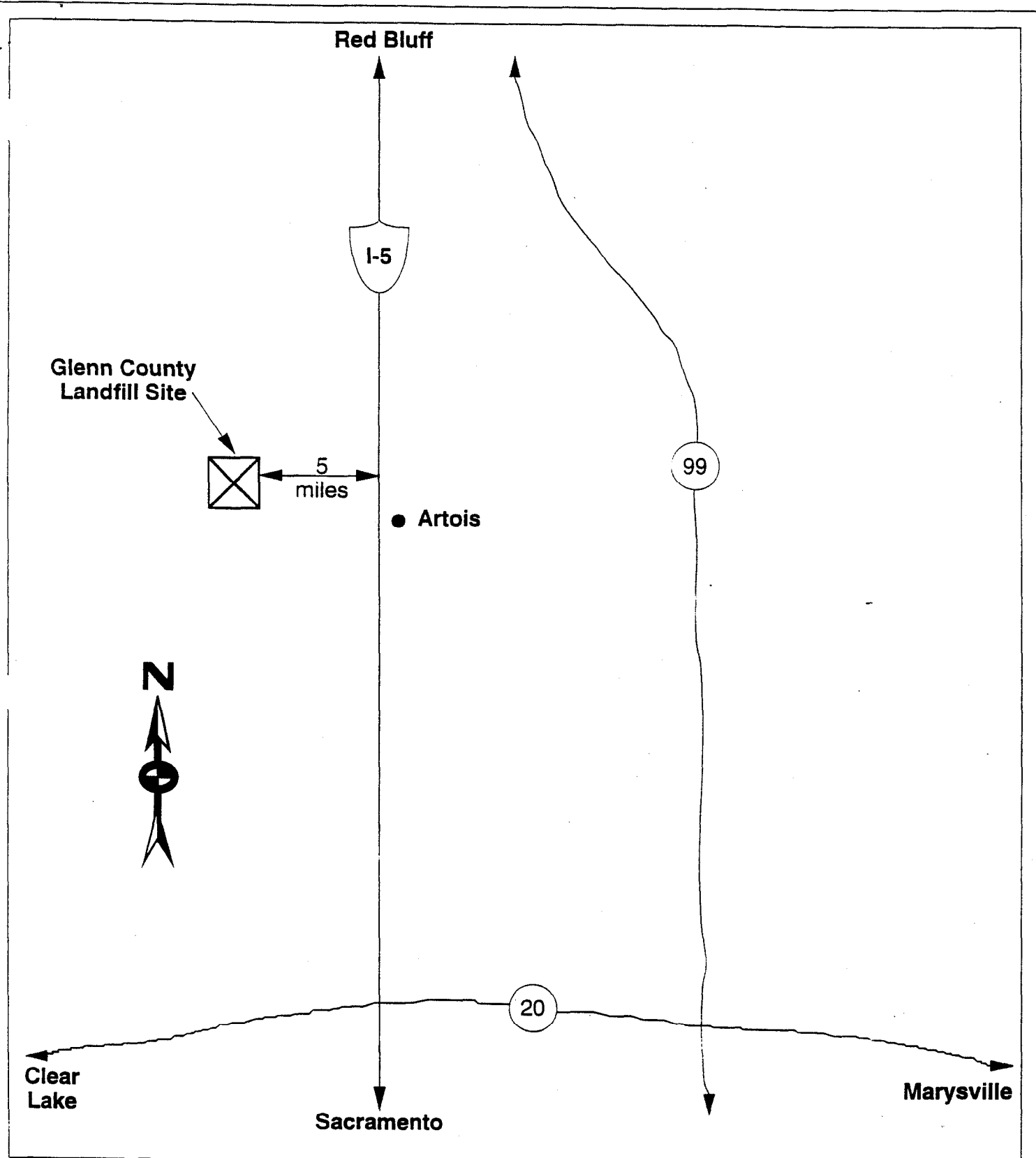


WILLIAM H. CROOKS, Executive Officer

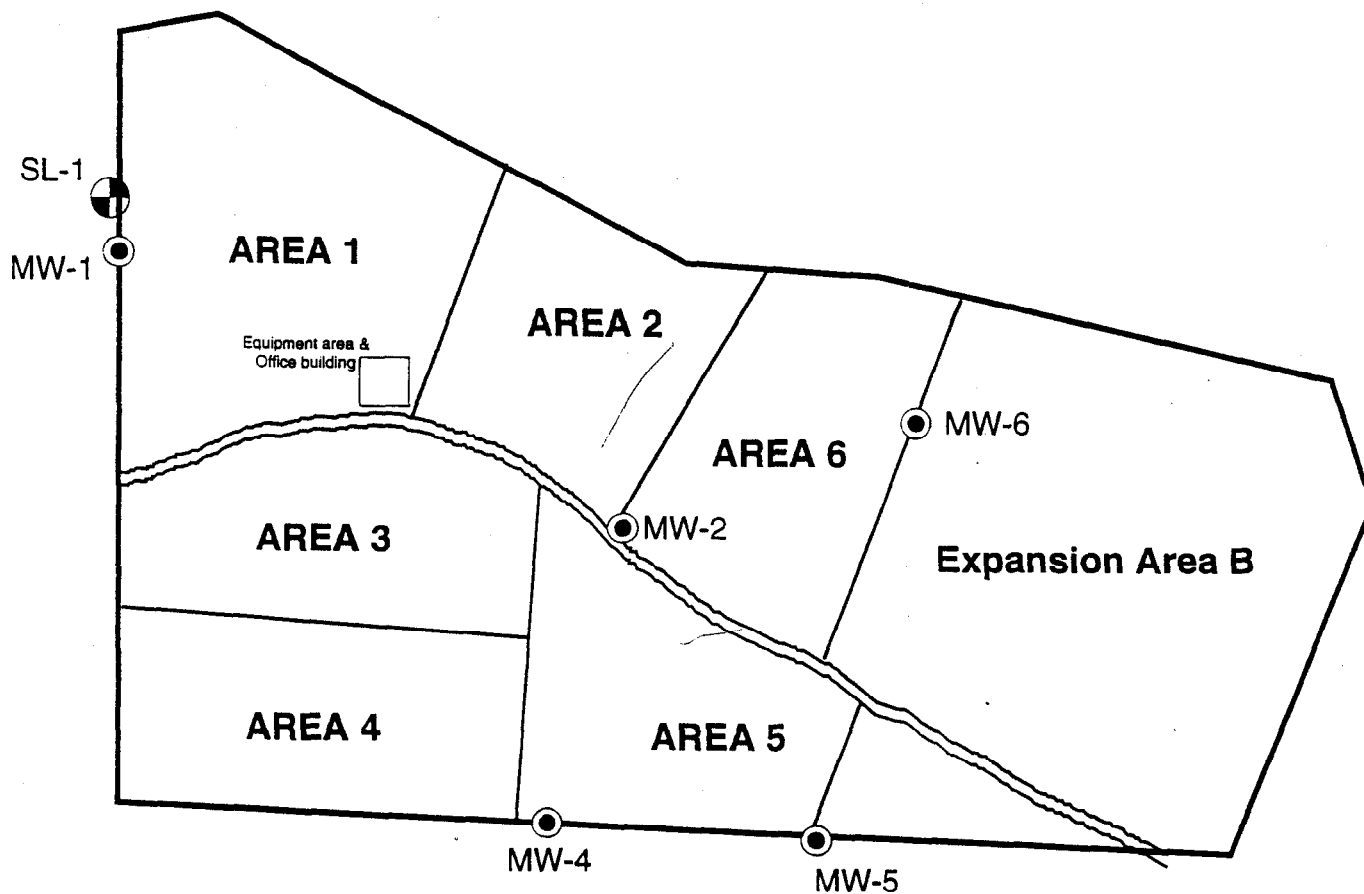
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(Date)

Attachments

GJW/EAS:rev. 23 May 1995



**ATTACHMENT A**  
**SITE LOCATION MAP**  
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Note: Area A is comprised of Areas 1, 2, 3, 4, 5, and 6.

**LEGEND:**



Monitoring Well



Suction Lysimeter

**ATTACHMENT B**

**FACILITY LAYOUT MAP**

**GLENN COUNTY SANITARY LANDFILL  
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Attachment C

MONITORING PARAMETERS FOR DETECTION MONITORING

Surrogates for Metallic Constituents:

pH  
Total Dissolved Solids  
Specific Conductivity  
Chloride  
Sulfate  
Nitrate nitrogen

Constituents included in VOC<sub>water</sub> (by USEPA Method 8260):

Acetone  
Acrylonitrile  
Benzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform (Tribromomethane)  
Carbon disulfide  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane (Ethyl chloride)  
Chloroform (Trichloromethane)  
Dibromochloromethane (Chlorodibromomethane)  
1,2-Dibromo-3-chloropropane (DBCP)  
1,2-Dibromoethane (Ethylene dibromide; EDB)  
o-Dichlorobenzene (1,2-Dichlorobenzene)  
p-Dichlorobenzene (1,4-Dichlorobenzene)  
trans- 1,4-Dichloro-2-butene  
1,1-Dichloroethane (Ethylidene chloride)  
1,2-Dichloroethane (Ethylene dichloride)  
1,1-Dichloroethylene (1,1-Dichloroethene; Vinylidene chloride)  
cis-1,2-Dichloroethylene (cis- 1,2-Dichloroethene)  
trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene)  
1,2-Dichloropropane (Propylene dichloride)  
cis-1,3-Dichloropropene

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Attachment C (continued)

trans-1,3-Dichloropropene  
Ethylbenzene  
2-Hexanone (Methyl butyl ketone)  
Methyl bromide (Bromomethene)  
Methyl chloride (Chloromethane)  
Methylene bromide (Dibromomethane)  
Methylene chloride (Dichloromethane)  
Methyl ethyl ketone (MEK; 2-Butanone)  
Methyl iodide (Iodomethane)  
4-Methyl-2-pentanone (Methyl isobutylketone)  
Styrene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene)  
Toluene  
1,1,1-Trichloroethane (Methylchloroform)  
1,1,2-Trichloroethane  
Trichloroethylene (Trichloroethene)  
Trichlorofluoromethane (CFC-11)  
1,2,3-Trichloropropane  
Vinyl acetate  
Vinyl chloride  
Xylenes



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Attachment D

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Inorganics (by USEPA Method):

Aluminum	6010	Tin	6010
Antimony	6010	Vanadium	6010
Barium	6010	Zinc	6010
Beryllium	6010	Arsenic	7061
Cadmium	6010	Lead	7421
Chromium	6010	Mercury	7470
Chromium VI <sup>+</sup>	7197	Nickel	7520
Cobalt	6010	Selenium	7741
Copper	6010	Thallium	7841
Iron	6010	Cyanide	9010
Manganese	6010	Sulfide	9030
Silver	6010		

Report all peaks identified by the EPA test methods. Ground water and leachate samples shall be analyzed and reported as dissolved. Surface water samples shall be analyzed and reported as total recoverable metals as specified in EPA-600/4-79-020 dated March 1993. Unsaturated zone water samples shall be analyzed and reported as totals.

Volatile Organics (USEPA Method 8260):

Acetone  
Acetonitrile (Methyl cyanide) Acrolein  
Acrylonitrile  
Allyl chloride (3-Chloropropene)  
Benzene  
Bromochloromethane (Chlorobromomethane)  
Bromodichloromethane (Dibromochloromethane)  
Bromoform (Tribromomethane)  
Carbon disulfide  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane (Ethyl chloride)  
Chloroform (Trichloromethane)  
Chloroprene  
Dibromochloromethane (Chlorodibromomethane)

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**Attachment D (continued)**

1,2-Dibromo-3-chloropropane (DBCP)  
1,2-Dibromoethane (Ethylene dibromide; EDB)  
o-Dichlorobenzene (1,2-Dichlorobenzene)  
m-Dichlorobenzene (1,3-Dichlorobenzene)  
p-Dichlorobenzene (1,4-Dichlorobenzene)  
trans- 1,4-Dichloro-2-butene  
Dichlorodifluoromethane (CFC 12)  
1,1-Dichloroethane (Ethylidene chloride)  
1,2-Dichloroethane (Ethylene dichloride)  
1,1-Dichloroethylene (1,1-Dichloroethene; Vinylidene chloride)  
cis- 1,2-Dichloroethylene (cis- 1,2-Dichloroethene)  
trans- 1,2-Dichloroethylene (trans- 1,2-Dichloroethene)  
1,2-Dichloropropane (Propylene dichloride)  
1,3-Dichloropropane (Trimethylene dichloride)  
2,2-Dichloropropane (Isopropylidene chloride)  
1,1 -Dichloropropene  
cis- 1,3-Dichloropropene  
trans- 1,3-Dichloropropene  
Ethylbenzene  
Hexachlorobutadiene  
2-Hexanone (Methyl butyl ketone)  
Isobutyl alcohol  
Isodrin  
Methacrylonitrile  
Methyl bromide (Bromomethane)  
Methyl chloride (Chloromethane)  
Methyl ethyl ketone (MEK; 2-Butanone)  
Methyl iodide (Iodomethane)  
Methyl methacrylate  
4-Methyl-2-pentanone (Methyl isobutyl ketone)  
Methylene bromide (Dibromomethane)  
Methylene chloride (Dichloromethane)  
Naphthalene  
Propionitrile (Ethyl cyanide)  
Styrene  
1,1,1,2-Tetrachloroethane  
1,1,2,2-Tetrachloroethane  
Tetrachloroethylene (Tetrachloroethene; Perchloroethylene; PCE)  
Toluene

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**Attachment D (continued)**

1,2,4-Trichlorobenzene  
1,1,1-Trichloroethane, Methylchloroform  
1,1,2-Trichloroethane  
Trichloroethylene (Trichloroethene; TCE)  
Trichlorofluoromethane (CFC- 11)  
1,2,3-Trichloropropane  
Vinyl acetate  
Vinyl chloride (Chloroethene)  
Xylene (total)

**Semivolatile Organics (USEPA Method 8270 - base, neutral, & acid extractables):**

Acenaphthene  
Acenaphthylene  
Acetophenone  
2-Acetylaminofluorene (2-AAF)  
Aldrin  
4-Aminobiphenyl  
Anthracene  
Benzo[a]anthracene (Benzanthracene)  
Benzo[b]fluoranthene  
Benzo[k]fluoranthene  
Benzo[g,h,i]perylene  
Benzo[a]pyrene  
Benzyl alcohol  
alpha-BHC  
beta-BHC  
delta-BHC  
gamma-BHC (Lindane)  
Bis(2-chloroethoxy)methane  
Bis(2-chloroethyl) ether (Dichloroethyl ether)  
Bis(2-chloro-1-methylethyl) ether (Bis(2-chloroisopropyl) ether; DCIP)  
Bis(2-ethylhexyl) phthalate  
4-Bromophenyl phenyl ether  
Butyl benzyl phthalate (Benzyl butyl phthalate)  
Chlordane  
p-Chloroaniline  
Chlorobenzilate  
p-Chloro-m-cresol (4-Chloro-3-methylphenol)  
2-Chloronaphthalene

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Attachment D (continued)

2-Chlorophenol  
4-Chlorophenyl phenyl ether  
Chrysene o-Cresol (2-methylphenol)  
m-Cresol (3-methylphenol)  
p-Cresol (4-methylphenol)  
4,4'-DDD  
4,4'-DDE  
4,4'-DDT  
Diallate  
Dibenz[a,h]anthracene  
Dibenzofuran  
Di-n-butyl phthalate  
o-Dichlorobenzene (1,2-Dichlorobenzene)  
m-Dichlorobenzene (1,3-Dichlorobenzene)  
p-Dichlorobenzene (1,4-Dichlorobenzene)  
3,3'-Dichlorobenzidine  
2,4-Dichlorophenol  
2,6-Dichlorophenol  
Dieldrin  
Diethyl phthalate  
p-(Dimethylamino)azobenzene  
7,12-Dimethylbenz[a]anthracene  
3,3'-Dimethylbenzidine  
2,4-Dimethylphenol (m-Xylenol)  
Dimethyl phthalate  
m-Dinitrobenzene  
4,6-Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)  
2,4-Dinitrophenol  
2,4-Dinitrotoluene  
2,6-Dinitrotoluene  
Di-n-octyl phthalate  
Diphenylamine  
Endosulfan I  
Endosulfan II  
Endosulfan sulfate  
Endrin  
Endrin aldehyde  
Ethyl methacrylate  
Ethyl methanesulfonate

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Attachment D (continued)

Famphur  
Fluoranthene  
Fluorene  
Heptachlor  
Heptachlor epoxide  
Hexachlorobenzene  
Hexachlorobutadiene  
Hexachlorocyclopentadiene  
Hexachloroethane  
Hexachloropropene  
Indeno(1,2,3-c,d)pyrene  
Isophorone  
Isosafrole  
Kepone  
Methapyrilene  
Methoxychlor  
3-Methylcholanthrene  
Methyl methanesulfonate  
2-Methylnaphthalene  
Naphthalene  
1,4-Naphthoquinone  
1-Naphthylamine  
2-Naphthylamine  
o-Nitroaniline (2-Nitroaniline)  
m-Nitroaniline (3-Nitroaniline)  
p-Nitroaniline (4-Nitroaniline)  
Nitrobenzene  
o-Nitrophenol (2-Nitrophenol)  
p-Nitrophenol (4-Nitrophenol)  
N-Nitrosodi-n-butylamine (Di-n-butyl nitrosamine)  
N-Nitrosodiethylamine (Diethyl nitrosamine)  
N-Nitrosodimethylamine (Dimethyl nitrosamine)  
N-Nitrosodiphenylamine (Diphenyl nitrosamine)  
N-Nitrosodipropylamine (N-Nitroso-N-dipropylamine; Di-n-propyl nitrosamine)  
N-Nitrosomethylethylamine (Methylethyl nitrosamine)  
N-Nitrosopiperidine  
N-Nitrosopyrrolidine  
5-Nitro-o-toluidine  
Pentachlorobenzene

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**Attachment D (continued)**

Pentachloronitrobenzene (PCNB)  
Pentachlorophenol  
Phenacetin  
Phenanthrene  
Phenol  
p-Phenylenediamine  
Polychlorinated biphenyls (PCBs; Aroclors)  
Pronamide  
Pyrene  
Safrole  
1,2,4,5-Tetrachlorobenzene  
2,3,4,6-Tetrachlorophenol  
o-Toluidine  
Toxaphene  
1,2,4-Trichlorobenzene  
2,4,5-Trichlorophenol  
2,4,6-Trichlorophenol  
0,0,0-Triethyl phosphorothioate  
sym-Trinitrobenzene

**Organophosphorus Compounds (USEPA Method 8141):**

0,0-Diethyl 0-2-pyrazinyl phosphorothioate (Thionazin)  
Dimethoate  
Disulfoton  
Methyl parathion (Parathion methyl)  
Parathion  
Phorate

**Chlorinated Herbicides (USEPA Method 8150):**

2,4-D (2,4-Dichlorophenoxyacetic acid)  
Dinoseb (DNBP; 2-sec-Butyl-4,6-dinitrophenol)  
Silvex (2,4,5-Trichlorophenoxypropionic acid; 2,4,5-TP)  
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)

## INFORMATION SHEET

**CATHERINE FOLEY AND PATRICK FOLEY  
COUNTY OF GLENN  
GLENN COUNTY LANDFILL  
CLASS III LANDFILL**

Glenn County Landfill is in Glenn County, approximately 5 miles west of the town of Artois, between Red Bluff and Sacramento on U.S. Interstate 5. The 193-acre site is owned by Catherine Foley and Patrick Foley, and is operated by Glenn County.

The landfill is currently regulated by Waste Discharge Requirements (WDRs) Order No. 93-122. The landfill site is made up of six unlined modules collectively known as Area A. Proposed expansion areas are to be constructed with a RCRA Subtitle D liner, and are known as Area B. The landfill has been in operation since October of 1972, accepting non hazardous solid waste from Glenn County. Approximately 72,000 cubic yards per year of refuse is being disposed of in Area A. The total capacity of the site is 1.36 million cubic yards.

Land within 1000 feet of the facility is used for agriculture. The beneficial uses of ground water are domestic, municipal, agricultural, and industrial supply. Surface drainage from the site is to two intermittent streams, Wilson Creek and White Cabin Creek, which are tributary to the Sacramento River. The beneficial uses of these surface waters are domestic, municipal, agricultural, and industrial supply; ground water recharge; recreation; esthetic enjoyment; navigation; fresh water replenishment; and the preservation and enhancement of fish, wildlife and other aquatic resources. The site is underlain by the uplifted and dissected sedimentary deposits of the Tehama Formation. Soil types range from clay and silt to coarse sand and gravel.

The facility receives an average of 17 inches of precipitation per year. The facility is not within a 100-year flood plain.

GJW:gw  
23 May 1995